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In the Claims:

Please amend Claims 1-10 and 12-19 to read as follows:

B1

1. An apparatus for setting a transmission-rate parameter for transmission of information units in a wireless communication system, comprising:

- a total counter for counting a total number of received information units;
- an error counter for counting an error number of received invalid information units;
- a division unit for dividing said error number by said total number, the division result being providable as a link-quality measure at an output of said division unit; and
- a decision unit for automatically setting said transmission-rate parameter by comparing said link-quality measure with at least one predefined value and defining said transmission-rate parameter to assume a corresponding data rate.

2. Apparatus according to claim 1, wherein the link-quality measure or the transmission-rate parameter is sequentially updatable.

9.  
3. An apparatus for setting a transmission-rate parameter for transmission of information units in a wireless communication system, comprising:

- a total counter for counting a total number of received information units;
- an error counter for counting an error number of received invalid information units;
- a division unit for dividing said error number by said total number, the division result being providable as a link-quality measure at an output of said division unit; and

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- a decision unit for setting said transmission-rate parameter by comparing said link-quality measure with at least one predefined value and defining said transmission-rate parameter to assume a corresponding data rate,
- wherein the link-quality measure is derivable iteratively increasing said total number after  $2^n * f$  counted information units, with  $n = 0, 1, 2, \dots$  and  $f$  a defined factor.

10. Apparatus according to claim <sup>9</sup>~~8~~, wherein the division is executable at a multiple of factor  $f$  automatically by a shift operation corresponding to  $n$ .

3. Apparatus according to claim 1, wherein the error number is maintained between at least two subsequent updates of the link-quality measure.

B1 11. An apparatus for setting a transmission-rate parameter for transmission of information units in a wireless communication system, comprising:

- a total counter for counting a total number of received information units;
- an error counter for counting an error number of received invalid information units;
- a division unit for dividing said error number by said total number, the division result being providable as a link-quality measure at an output of said division unit; and
- a decision unit for setting said transmission-rate parameter by comparing said link-quality measure with at least one predefined value and defining said transmission-rate parameter to assume a corresponding data rate,

wherein the division unit comprises storage cells having a shift control, or comprises a multiplexer having a static logic.

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~~4.~~  
~~7.~~ Apparatus of claim 1 further comprising a control unit which controls the total counter, the error counter, the division unit, and the decision unit.

~~5.~~  
~~8.~~ Apparatus according to claim 1, wherein the division unit comprises the error counter.

~~6.~~  
~~9.~~ Apparatus according to claim 1, wherein the decision unit comprises at least one comparator and a derivation unit for deriving from at least one output of said comparator the transmission-rate parameter.

~~11.~~  
~~10.~~ Apparatus according to claim 1, wherein at least four predefined values are preloadable thresholds which correspond to a data rate of 4, 2, 1, 0.5 or 0.25 Mb/s, respectively.

~~8.~~  
~~11.~~ An adaptive variable data-rate system for transmitting data over an infrared link comprising an apparatus according to claim 1.

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12. A method for setting a transmission-rate parameter for transmission of information units in a wireless communication system, comprising the steps of:

- counting a total number of received information units;
- counting an error number of received invalid information units;
- dividing said error number by said total number and providing the division result as a link-quality measure;
- comparing said link-quality measure with at least one predefined value; and
- automatically setting said transmission-rate parameter depending on the result of the comparison.

13. Method according to claim 12, wherein the link-quality measure or the transmission-rate parameter is sequentially updated.

18.  
14. A method for setting a transmission-rate parameter for transmission of information units in a wireless communication system, comprising the steps of:

- counting a total number of received information units;
- counting an error number of received invalid information units;
- dividing said error number by said total number and providing the division result as a link-quality measure;
- comparing said link-quality measure with at least one predefined value; and
- setting said transmission-rate parameter depending on the result of the comparison, wherein the link-quality measure is derived after receiving a number of information units that is a multiple of  $2^n$ , with  $n = 0, 1, 2, \dots$ .